



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,016	11/26/2003	Ralph B. Danzl	P-10462.00	1783
27581	7590	03/26/2007		
MEDTRONIC, INC. 710 MEDTRONIC PARK MINNEAPOLIS, MN 55432-9924			EXAMINER KAHELIN, MICHAEL WILLIAM	
			ART UNIT	PAPER NUMBER
			3762	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/723,016

Applicant(s)

DANZL ET AL.

Examiner

Michael Kahelin

Art Unit

3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-21 is/are pending in the application.
- 4a) Of the above claim(s) 13-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to: See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The declaration filed on 11/14/2006 under 37 CFR 1.131 has been considered but is ineffective to overcome the Brendel reference. The evidence submitted is insufficient to establish a reduction to practice of the invention in this country or a NAFTA or WTO member country prior to the effective date of the Brendel reference. Although the date cited in the declaration overcomes the effective date of the Brendel reference under 35 USC 102(a), the date does not overcome Brendel's effective date under 35 USC 102(e), i.e. February 27, 2003. As 102(e) dates are applicable for rejections under 35 USC 103(a), the declaration is ineffective to overcome the Brendel reference.

Claim Objections

2. Claims 6-11 are objected to because of the following informalities: the claims are dependent on a cancelled claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-4 and 6-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aiello et al. in view of Brendel et al (U.S. 2003/0213605). Aiello et al. disclose the essential features of the claimed invention, including the following:

6. With reference to claims 1 and 6, Aiello et al. disclose a semiconductor material that has an epitaxial layer that contains two electrodes and a vertical power transistor that has a collector electrode and a metal track that is in contact with the base region and emitter region (see column 3, lines 41-53). Aiello et al. disclose the transistor has a high breakdown voltage, typically greater than 200V (see column 2, lines 43-49).

7. Referring to claims 2 and 3, Aiello et al. teach an active area in the epitaxial layer and a plurality of transistor cells formed in the epitaxial layer (see figures 2a and 3, elements 130, 220, 210, 120).

8. Regarding claim 4, Aiello et al. teach that the semiconductor layer has a high impurity concentration and the epitaxial layer has a low concentration of impurities (see column 5, lines 55-65).

Art Unit: 3762

9. Aiello et al. do not disclose the deep trench exposing the substrate, that solder bumps are formed on the contact regions, a defibrillator having a housing or a substrate that couples the electrodes to the internal circuitry. Regarding claims 1 and 12, Brendel et al. disclose the trench and a first electrode contact region (see figure 20). The trench allows for better contact of the electrode, and using the device in an implantable defibrillator provides for the secure connections needed in order to properly sense and provide therapy. With regards to claims 8 and 9, Brendel et al. disclose that the filter assembly is to be used in an implantable defibrillator (see paragraph 42) and that solder is used to connect elements (see paragraphs 113-114). Referring to claim 11, a gold braze area is formed on the surface of the device (see paragraphs 113-114). Solder is cost efficient and properly wets and bonds to metal. The metal layer provides for conductivity among elements. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the semiconductor device taught by Aiello et al. with the deep trench exposing the substrate, that solder bumps are formed on the contact regions, a defibrillator having a housing and a substrate that couples the electrodes to the internal circuitry as taught by Brendel et al. in order to allow for better contact of the electrode, provide for the secure connections needed in order to properly sense and provide therapy, solder is cost efficient and properly wets and bonds to metal, and the metal layer provides for conductivity among elements.

Response to Arguments

10. Applicant's arguments filed 11/14/2006 have been fully considered but they are not persuasive. Applicant argued that the combination of Aiello and Brendel is lacking motivation. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. As motivation is indicated in the above rejection, it is unknown why Applicant believes the indicated motivation(s) to be spurious, or to which claim(s) the allegation of lacking motivation pertains.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 3762

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kahelin whose telephone number is (571) 272-8688. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MWK

MR KR
3/16/07

GEORGE R. EVANIS
PRIMARY EXAMINER

9/19/7